

Mineral Industry Surveys

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SULFUR IN JUNE 2006

During the month, production of recovered elemental sulfur was 683,000 metric tons, according to the U.S. Geological Survey. June 2006 production was 4% lower than that of May 2006 and 12% lower than that of June 2005. Shipments were slightly lower than those of May 2006. Producers' ending stocks for June 2006 were 144,000 tons.

Sulfur production was significantly lower than it was in June 2005. Sulfur production at petroleum refineries has begun to recover to the level experienced before two major hurricanes struck the Gulf Coast in August and September 2005. Acid gas reinjection at a large natural gas operation in Wyoming as well as decreased production at other operations reduced sulfur production from that source by nearly 40% from a year ago. Production from refineries is expected to continue to increase,

but recovery from natural gas operations is not predicted to increase significantly.

Import and export data for June 2006 were not available at the time of publication and will be published in the Sulfur in July 2006 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for May 2006 were estimated to be 259,000 tons; exports were 19,000 tons. Imports of sulfuric acid for May 2006 were 229,000 tons; exports were 17,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information and data from personal communications with industry experts.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Ending stocks ³
	Petroleum ²	Natural gas	Total		
2005:					
January-December	6,940	1,810	8,750	8,720	XX
January-June	3,550	965	4,520	4,490	XX
June	621	158	778	775	178
July	623	153	776	776	175
August	647	163	811	812	175
September	489	141	630	634	165
October	478	136	614	614	158
November	555	129	683	671	167
December	593	120	714	721	156
2006:					
January	572	114	686	677	160
February	513	114	627	632	151
March	544	112	656	660	142 ^r
April	552 ^r	120	672 ^r	654 ^r	161 ^r
May	593 ^r	119	712 ^r	703 ^r	161 ^r
June ^p	587	96	683	696	144
Total	3,360	676	4,040	4,020	XX

^pPreliminary. ^rRevised. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes a small quantity from coking operations.

³Subject to inventory adjustments.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Venezuela		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³	Quantity ^e	Value ³
2005:								
January-December	1,970	33,500	427	18,600	409	16,800	2,820	70,500
January-May	755	10,900	181	8,040	171	6,470	1,150	25,800
May	170	1,890	40	1,570	40	1,600	251	5,140
June	165	2,460	40	1,780	30	1,340	235	5,670
July	170	2,650	40	1,490	38	1,440	218	5,610
August	170	2,820	20	808	31	1,280	221	5,040
September	160	3,020	39	1,600	41	1,670	241	6,360
October	185	3,570	44	1,900	37	1,620	227	7,770
November	180	3,680	29	1,130	20	819	233	5,710
December	185	4,360	34	1,890	41	2,180	261	8,500
2006:								
January	165	4,190	58	2,520	37	1,680	260	8,460
February	150	3,910	43	1,810	40	1,650	233	7,450
March	165	3,970	44	2,010	34	1,580	243	7,690
April	205 ^r	4,290	29	1,420	30	1,410	264 ^r	7,230
May	210	3,260	29	1,390	19	925	259	5,820
Total	895	19,600	203	9,140	160	7,240	1,260	36,600

^eEstimated.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and PentaSul North America Sulphur Service.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Mexico			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2005:									
January-December	2,000	656	80,700	398	129	7,920	2,660	871	102,000
January-May	879	289	33,400	183	60	3,410	1,160	379	42,600
May	158	52	6,370	34	11	606	192	63	7,080
June	144	47	5,360	26	8	445	189	62	6,380
July	168	55	6,840	9	3	187	213	70	7,790
August	156	51	6,490	19	6	350	196	64	9,150
September	169	55	6,890	35	11	626	241	79	8,260
October	178	58	7,880	60	20	1,730	253	83	11,600
November	138	45	5,910	38	12	674	181	59	6,820
December	172	56	7,910	28	9	504	229	75	9,640
2006:									
January	194	63	7,800	16	5	444	244	80	9,030
February	161	53	6,550	23	7	416	201	66	7,670
March	198	65	7,760	19	6	454	255	83	9,050
April	207	68	7,910	16	5	400	234	77	9,100
May	207	68	7,840	13	4	307	229	75	8,320
Total	967	316	37,900	87	28	2,020	1,160	380	43,200

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF SULFUR AND SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value ²	Quantity	Sulfur content	Value ²
2005:					
January-December	683	55,900	338	108	29,500
January-May	245	20,900	149	48	11,900
May	16	1,850	26	8	2,560
June	56	5,920	38	12	3,630
July	64	4,520	24	8	1,920
August	71	5,330	25	8	2,600
September	42	3,470	26	8	2,810
October	104	7,070	32	10	3,020
November	14	2,940	7	2	992
December	87	5,790	37	12	2,560
2006:					
January	55	4,430 ^r	14	4	1,400
February	15	1,900 ^r	38	12	2,400
March	68	4,710 ^r	23	8	2,000 ^r
April	11	1,270 ^r	19	6	1,600
May	19	2,090	17	5	1,400
Total	168	14,400	110	36	8,800

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5
U.S. CONSUMPTION OF SULFUR¹

(Thousand metric tons)

Period	Domestic sources ²	Imports ^e	Consumption
2005:			
January-December	8,060	2,790	10,900
January-April	3,380	1,160	4,540
April	665	249	914
May	756	251	1,010
June	719	235	954
July	712	218	930
August	741	221	962
September	592	241	833
October	510	227	737
November	657	233	890
December	634	261	895
2006:			
January	622	260	882
February	617	233	850
March	592	243	835
April ^f	643	264	907
May	684	259	943
Total	3,160	1,260	4,420

^eEstimated. ^fRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Calculated as shipments minus exports.

TABLE 6
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT¹

(Thousand metric tons)

District and source	June 2006 ^p		May 2006		January - June 2006 ²		January - June 2005 ²	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	19	19	21	22	118	120	127 ^r	128 ^r
Natural gas	1	1	2	2	8	8	11 ^r	11 ^r
Total	21	20	22	23	126	128	138 ^r	139 ^r
PAD 2:								
Petroleum and coke	90	91	86	86	502	505	507 ^r	507 ^r
Natural gas	3	3	3	3	19	19	20	20
Total	93	95	89	89	521	524	528 ^r	527 ^r
PAD 3: ³								
Petroleum and coke	360	370	367	373	2,070	2,070	2,240 ^r	2,240 ^r
Natural gas	37	38	39	37	219	219	252 ^r	257
Total	397	408	406	410	2,290	2,290	2,490 ^r	2,490 ^r
PAD 4 and 5: ⁴								
Petroleum and coke	118	116	119 ^r	114 ^r	669	646	680	661
Natural gas	54	57	76	68	430	433	682 ^r	673 ^r
California	97	95	98 ^r	92 ^r	547	527	536 ^r	514 ^r
Total	172	173	195 ^r	182 ^r	1,100	1,080	1,360 ^r	1,330 ^r
Grand total	683	696	712 ^r	703 ^r	4,040	4,020	4,520	4,490

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include revisions.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

	2006			2005
	June	May	Total	total
Production	8.31 ^p	8.38 ^r	8.14 ^r	8.75 ^r
Shipments	8.47 ^p	8.28 ^r	8.11 ^r	8.72 ^r
Exports of sulfur	NA	0.22	0.41	0.58
Imports of sulfur:				
Canada	NA	2.47 ^e	2.16 ^e	1.97 ^e
Mexico	NA	0.34	0.49	0.45
Venezuela	NA	0.22 ^e	0.39 ^e	0.41 ^e
Total ²	NA	3.05 ^e	3.04 ^e	2.79 ^e
Exports of H ₂ SO ₄	NA	3.05	3.04	0.31
Imports of H ₂ SO ₄ :				
Canada	NA	2.44	2.34	1.87
Mexico	NA	0.15	0.21	0.40
Total ²	NA	2.70	2.81	2.66
Consumption: ³				
Domestic sources	NA	8.05	7.63	8.06 ^r
Imports	NA	3.05 ^e	3.04 ^e	2.79 ^e
Total	NA	11.10	10.68	10.85 ^r
Sulfur export values ⁴	NA	110	86	84
Sulfur import values: ⁴				
Canada	NA	16	22	17
Mexico	NA	48	45	41
Venezuela	NA	49	45	41
Average ²	NA	22	29	25
H ₂ SO ₄ export values ⁴	NA	82	80	86
H ₂ SO ₄ import values: ⁴				
Canada	NA	38	39	40
Mexico	NA	24	23	20
Average ²	NA	36	37	38

^eEstimated. ^pPreliminary. ^rRevised. NA Not available.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other countries not listed.

³Because June trade data were not available, June consumption was not determined.

⁴Average value per ton for most recent data available.